

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029588**Date Inspected:** 13-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

At the start of shift, this Quality Assurance Inspector (QAI) traveled to the project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed on the various Complete Joint Penetration (CJP) groove welds and fillet welds of the East and West Orthotropic Box Girders (OBG's). The welding was performed utilizing Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specifications (WPS's).

At the start of the shift this QAI observed the following:

This QAI verified the welding performed and completed of the relocated ladder attachment 'bent-plates' at the South Tower interior elevation +83M. The welding was performed by Xiao Hua Luo #1291 utilizing the required E7018 electrodes as per WPS ABF-WPS-D15-F1200A. The AB/F Quality Control (QC) Inspector Fred Michels was present, monitoring the WPS parameters of the in progress welding. The welding, QC inspection and related work was observed and verified by this QAI and appeared to be in compliance with the contract documents.

This QAI observed the lack of required preheat during the welding of the Seal Cover Plates at location 13E-PP119(+1500)-E3 per RFI #003256R00. The welding was being performed by Gue Wu Chen #9340 utilizing the required E7018 electrodes as per WPS ABF-WPS-D15-F1200A. There was no AB/F Quality Control (QC) inspection presence at this time. This QAI informed the QA Lead Inspector, Danny Reyes, of this issue and later in the shift Mr. Reyes informed this QA that he had spoken to the QC Inspector, William Sherwood, and that Mr. Sherwood informed Mr. Reyes that he would resolve this issue by continuous monitoring the preheat.

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## WELDING INSPECTION REPORT

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This QAI observed the lack of required preheat during welding of Seal Cover Plates at 13W-PP119(-1500)-W3 per RFI #003256R00. The temperature of the stiffener directly adjacent to the weld after completing a weld pass was such that this QAI was able to comfortably press his palm flat against that area and leave it. There was no Tempilstick crayon or QC present to measure this temperature. It is estimated that the temperature was 105F degrees +/-5F degrees. The welding was being performed by James Zhen #6001 utilizing the E7018 electrodes required per WPS ABF-WPS-D15-F1200A. There was no AB/F Quality Control (QC) Inspector present at this time.

This QAI observed the preheat to 325F was in place and welding in progress of Seal Cover Plates 13W-PP119(+1500)-W3 per RFI #003256R00. The welding was being performed by Lin E. Yun #9344 utilizing the E7018 electrodes as required per WPS ABF-WPS-D15-F1200A. The AB/F Quality Control (QC) Inspector Salvador Merino was present, monitoring the WPS parameters of the welding being performed. The welding, QC inspection and related work was observed and verified by this QAI and appeared to be in general compliance with the contract documents.

This QAI visited the location 13E-PP119(-1500)-E3 of Seal Cover Plate installations and noted that no preheat was present and that no welding was being performed at this time. Welder Earl Clayborn #5070 was present. There was no AB/F Quality Control (QC) inspection presence at this time.

### Summary of Conversations:

No significant conversations took place.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Morris, Monty	Quality Assurance Inspector
<b>Reviewed By:</b>	Reyes, Danny	QA Reviewer

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